

What is claimed is:

1       1. An apparatus for sterilizing articles, comprising:  
2       a chamber for receiving articles to be sterilized;  
3       a heater for heating liquid in said chamber to form steam;  
4       a pressure sensor in communication with said chamber; and  
5       a control mechanism, wherein the pressure of steam inside said chamber is  
6       sensed by said pressure sensor, and said control mechanism maintains the steam at  
7       a predetermined pressure until an end of a sterilization cycle.

1       2. The apparatus of claim 1, wherein said heater is adapted to be cycled on  
2       and off by said control mechanism during the sterilization cycle to maintain the  
3       predetermined pressure of steam.

1       3. The apparatus of claim 1, wherein at least two pressure sensors are  
2       provided, each said pressure sensor operable to select different predetermined  
3       pressures.

1       4. The apparatus of claim 1, wherein said pressure sensor is a valve  
2       operable at a predetermined pressure.

1       5. The apparatus of claim 1, wherein the chamber is capable of receiving a  
2       predetermined volume of liquid.

1       6. The apparatus of claim 1, wherein said control mechanism includes a  
2       timer.

1       7. The apparatus of claim 6, wherein said timer is operable by a user of the

1       apparatus.

1           8. The apparatus of claim 1, further comprising a vent valve to vent said  
2       chamber at an end of the sterilization cycle.

1           9. The apparatus of claim 8, further comprising a liquid collection reservoir  
2       connected to said vent valve.

1           10. The apparatus of claim 1, further comprising a temperature selection  
2       switch operable by a user of the apparatus, said selection switch controlling said  
3       predetermined pressure.

1           11. A method of sterilizing articles comprising the steps of:  
2           providing a sterilizing apparatus having a chamber, a heater, a pressure  
3       sensor and a control mechanism;  
4           placing articles to be sterilized in the chamber;  
5           supplying liquid to the apparatus  
6           heating the liquid to form steam;  
7           sensing the pressure of steam inside the chamber, wherein when a  
8       predetermined pressure of steam inside the chamber is attained, the control  
9       mechanism is activated to retain the steam at the predetermined pressure of steam  
10       until a sterilization cycle is completed.

1           12. The method of claim 11, wherein the heater is cycled on and off during  
2       the sterilization cycle to maintain the predetermined pressure of steam.

1           13. The method of claim 11, further comprising the step of selecting the

2 predetermined pressure of steam from at least two predetermined pressures.

1 14. The method of claim 11, wherein the liquid is supplied to the apparatus  
2 at a predetermined volume.

1 15. The method of claim 11, further comprising venting the steam at the  
2 end of the sterilization cycle.

1 16. A method of sterilizing articles, comprising the steps of:  
2 providing a sterilizing apparatus having a chamber, a heater, and a control  
3 mechanism;  
4 placing articles to be sterilized in the chamber;  
5 supplying liquid to the apparatus;  
6 heating the liquid to form saturated steam;  
7 retaining the saturated steam in the chamber for a predetermined period of  
8 time at a predetermined pressure; and  
9 venting the chamber, whereby the articles are substantially dry at the end of  
10 a sterilization cycle.

1 17. The method of claim 16, further comprising the step of retaining the  
2 articles in the chamber for a period of time at the end of a sterilization cycle to cool  
3 the articles.

1 18. The method of claim 16, wherein the predetermined pressure is  
2 selectable from at least two different predetermined pressures.

1 19. The method of claim 16, wherein a predetermined volume of liquid is

2       heated to form the steam.

1           20. The method of claim 16, wherein the saturated steam is heated while it  
2       is retained in the chamber in order to maintain the saturated steam at the  
3       predetermined pressure.

1           21. The method of claim 20, wherein the heating of the saturated steam is  
2       intermittent during a sterilization cycle.

1           22. A method of reducing biofilm contamination in a sterilizing apparatus,  
2       comprising the steps of:

3            providing fresh liquid to the apparatus;  
4            heating the fresh liquid to form steam;  
5            retaining the steam in the apparatus for a predetermined period of time in  
6       order to sterilize articles placed in the apparatus;  
7            venting the apparatus;  
8            condensing the steam to form waste liquid; and  
9            discharging the waste liquid.

1           23. The method of claim 22, wherein the steam is retained in the apparatus  
2       at a predetermined pressure.

1           24. The method of claim 22, wherein a predetermined volume of fresh liquid  
2       is heated to form the steam.

1           25. The method of claim 22, wherein the fresh liquid and the waste liquid  
2       are kept separate from one another.

1           26. The method of claim 22, wherein the fresh liquid is heated to form  
2           saturated steam.

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